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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,094	07/21/2003	Yoshimasa Kinoshita	FS.20116US1A	6014

20995 7590 09/10/2004

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EXAMINER

WRIGHT, ANDREW D

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,094

Applicant(s)

KINOSHITA ET AL.

Examiner

Andrew Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-24 and 31-47 is/are rejected.
- 7) ☒ Claim(s) 7-12 and 25-30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/21/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 17-19, 21-24, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Uchida et al. (US 4,767,363). Uchida shows a watercraft (11) with a propulsion device (16), internal combustion engine (13), controller comprising electronics (38, 42, 47, 46, and 51), steering mechanism (28), first sensing means (41), and second sensing means (31). The first sensing means is a throttle position sensor that is indicative of engine power. The second sensing means is a steering angle sensor. The control circuitry decreases the engine output when the throttle setting exceeds a predetermined amount and the steering angle exceeds a predetermined value (see line 13 of column 3 through line 40 of column 4).

3. Regarding claim 2, the decrease is for a preset period of time as determined by multivibrator (44).

4. Claim 3, the time period begins when the steering sensor determines that the steering angle exceeds the value (B) at point in time (a).

5. Claim 4, the engine sensing means is throttle position sensor which is an engine load sensing device.

6. Claim 5, the throttle position sensor indicates the angle of opening of the throttle valve.
7. Claim 6, the indicated angle (D) is compared to a predetermined angle (E).
8. Claim 17, the control circuitry decreases the amount of engine power by delaying the timing of the ignition by misfiring the ignition circuit.
9. Claims 18 and 19, Uchida also discloses that the engine output can be reduced by closing the throttle valve. Closing the throttle valve constitutes inhibiting the throttle valve from opening.
10. The elements of claims 21-24 and 32 are present in the apparatus of Uchida as described above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 37-39 and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al. (US 4,767,363). Uchida discloses an apparatus but does not specifically disclose the recited method steps. The method steps, however, are inherent in the making and use of the Uchida apparatus. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to devise the recited method steps. The motivation would be to make and use the

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apparatus of Uchida for the purpose of preventing too sudden a driving thrust when the steering angle is steep (column 1, lines 15-30).

13. Claims 1, 2, 13-19, 31, 33-36, 37, 40, 41, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al. (US 4,767,363) in view of Fukui (US 5,203,727). Uchida discloses the apparatus comprising an engine load sensing means, a steering angle sensing means, and control circuitry for reducing engine output for a preset period of time. Regarding claims 1, 2, 13, 14, 33, 34, 37, 38, and 40, Uchida does not disclose an engine speed sensing means. Fukui discloses an engine controller that in some instances decreases engine output as a result of increased steering angle. Fukui discloses that the system has an engine speed sensing means (40) and a steering angle sensing means (80). Uchida discloses that sensing means other than a throttle position sensor may be used (column 3, lines 25-38). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Uchida by using an engine speed sensor instead of a throttle position sensor. The motivation would be to optimize design parameters such as cost, weight, and response time by using another known means of measuring engine performance.

14. Regarding claim 15, 31, and 35, Fukui teaches that the engine output can be controlled by increasing or decreasing the amount of fuel supplied (see Fukui column 5, lines 50-55). Uchida suggests that arrangements other than controlling the ignition closing the throttle valve can be used (see Uchida column 4, lines 35-40). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention

was made to modify Uchida by using an increased fuel supply to decrease the engine output. The motivation would be to optimize design parameters by using one of the other known ways of controlling engine output as suggested by Uchida.

15. Regarding claim 16, Fukui teaches that the engine output can be controlled by increasing or decreasing the amount of fuel supplied (see Fukui column 5, lines 50-55). Uchida suggests that arrangements other than controlling the ignition closing the throttle valve can be used (see Uchida column 4, lines 35-40). It is well known and common simultaneously control the throttle opening and amount of fuel supply for the purpose of controlling engine output. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Uchida by simultaneously controlling both the throttle opening and the amount of fuel supply to achieve a desired ratio for combustion. The motivation would be to optimize design parameters by using one of the other known ways of controlling engine output as suggested by Uchida.

16. Regarding claims 17 and 36, both Uchida and Fukui teach that the engine output can be decreased by delaying the ignition timing (see Fukui column 5, lines 50-55).

17. Regarding claim 18, both Uchida and Fukui teach that the engine output can be reduced by decreasing the opening of the throttle valve (see Fukui column 5, lines 50-55).

18. Regarding claims 37, 40, 41, 46, and 47, the method steps are inherent in the making and use of the modified apparatus of Uchida in view of Fukui as described above with respect to claims 1, 13, 15, 33, and 34. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to

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devise the recited method steps. The motivation would be to make and use the modified apparatus of Uchida in view of Fukui for the purpose of preventing too sudden a driving thrust when the steering angle is steep.

19. Claims 1 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al. (US 4,767,363) in view of Hall et al. (US 6,168,485). Uchida shows an outboard motor with a propeller. Uchida does not show a tunnel and a jet pump unit with an impeller. Hall shows an outboard motor with a tunnel and a jet pump unit with an impeller. The tunnel is the forward-most inlet of the jet pump. Hall teaches that use of an impeller is safer to swimmers and marine life. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Uchida by using the outboard jet pump shown by Hall. The motivation would be to provide a safer outboard engine.

Allowable Subject Matter

20. Claims 7-12 and 25-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Heidner ('879) discloses an outboard engine where advancement of the throttle is prevented by mechanical means when the steering angle is past a predetermined value.

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22. Any inquiry concerning this communication should be directed to examiner Andrew D. Wright at telephone number (703) 308-6841. The examiner can normally be reached Monday-Friday from 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano, can be reached at (703) 308-0230. The fax number for official communications is 703-872-9306. The fax number directly to the examiner for unofficial communications is 703-746-3548.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew D. Wright
Patent Examiner
Art Unit 3617

Ar 9-7-04
ANDREW D. WRIGHT
PRIMARY EXAMINER